# George Dacey to Succeed Morgan Sparks



GEORGE DACEY

George Dacey, a vice president of Bell Laboratories, becomes president at Sandia National Laboratories on Aug. 1, succeeding Morgan Sparks, president since October 1972.

Now VP of Operations Systems and Network Planning at Bell Labs, Mr. Dacey served as VP of research at Sandia from 1961-63

At Bell Labs he is responsible for the systems engineering which underlies planning of the Bell System's telecommunications network and its associated operational support network as well as the development and deployment of the operations support systems themselves.

He joined Bell Labs in 1952, where he worked on transistor device feasibility studies, later supervising transistor development. He was appointed Assistant Director of the Solid State Electronics Research Laboratory in 1958 and became Director two years later before transferring to Sandia.

When he returned to Bell Labs in August 1963, he was appointed Director of the Telephone Division. He was named a vice president there in 1968.

He holds nine patents on transistors and is the author of numerous technical papers on transistor physics, lasers and related topics. He is a Fellow of the Institute of Electrical and Electronics Engineers and the American Physical Society and a member of the National Academy of Engineering.

Mr. Dacey received a BS degree in electrical engineering from the University of Illinois in 1942, then spent three years with Westinghouse Research Laboratories before enrolling at the California Institute of Technology, where he received his PhD degree in physics in 1951.

Mr. Sparks, Sandia's president for the past eight and a half years, will retire on July 31, ending 38 years of service with the Bell System. He will continue to reside in Albuquerque.

Mr. Dacey, now 60, will be Sandia's eighth president since Western Electric assumed management in 1949. Mr. Dacey and his wife Anne have three grown children, Donna Lynn, John Clement and Sarah Anne.

# \*LAB NEVS

VOL. 33, NO. 11

MAY 29, 1981

SANDIA NATIONAL LABORATORIES • ALBUQUERQUE NEW MEXICO • LIVERMORE CALIFORNIA • TONOPAH NEVADA



WE WON—That's the message from these forty or so Sandia athletes who—along with another forty who couldn't make the picture—took the Corporate Cup last weekend for the second year in a row. They were

competing against teams from Los Alamos, Digital, PNM, GTE, Mt. Bell, APS, APD, USGS and more. Story, more photos, page five.

# Afterthoughts

Language: About about—Technical people are uneasy in the presence of the unqualified number. We'll send out a story for review containing a sentence like this: "The new building, with 20,000 square feet of floor space, will be occupied next month." The review copy comes back like this: "The new building, with about (or approximately) 20,000 square feet...". So what's the difference between the two versions? Has meaning been enhanced by that "about"? I think not. When the reader comes across a number like 20,000, I think we can assume that he or she comprehends that it's 20,000, give or take a little either way. Sometimes we see the other extreme: "Piston travel was about 4.3425cm." With this usage you wonder just how many significant places the author would require before he'd be willing to drop the "about."

\* \* \*

Animal fighting—Save for abortion (and maybe gun control), there is probably no more emotion—fraught issue than animal fighting for sport, and the recent state legislative session sometimes appeared to be occupied exclusively with bills relating to dog and cock fighting. I don't feel very strongly one way or the other, especially since the activities are not particularly widespread nor popular. With respect to cock fighting, though, I do have a question that will probably raise the hackles of chicken lovers: as the cock enters the slaughterhouse (instead of the fighting pit) to have his neck wrung, will he now be grateful that society has afforded him such a humane exit? \*js

# **Breast Cancer Specialist To Talk In 815**

by Susan Harris, Sandia Medical

#### Go For Health

Dr. Karl Moedl, Albuquerque surgeon, will present a two-part series on breast cancer in Medical's Go for Health series on June 9 and July 14. On June 9, the topic will be an overview of the entire area of breast cancer, including early detection; on July 14, recent advances in the diagnosis and treatment of breast cancer will be covered. Both programs will be in Bldg. 815 (outside the Tech Area) from 12-12:30 p.m. Men, as well as women, are encouraged to attend. Since Bldg. 815 is outside the Tech Area, spouses also will be able to attend and are cordially invited.

Every woman, every couple, should be concerned about breast lumps. The reason



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barry schrader reports livermore.

is simple. Although most breast lumps are harmless, they can be an indication of breast cancer—one of the leading causes of death in women. Breast cancer cannot be prevented. It can only be detected early and properly treated. Monthly breast self-examination is the best defense against breast cancer. Mark your calendar now to attend this series of lectures.

# Videotapes on Health Now Available At Individualized Learning Center (ILC)

Medical has placed several videotapes on health in the new ILC in Bldg. 892, room 297. They include:

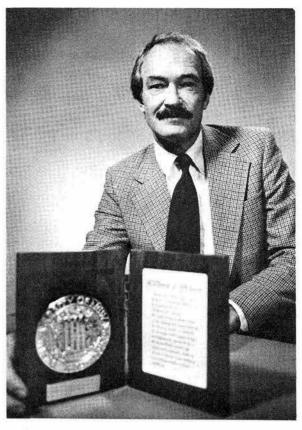
— The Stanford Heart Health Test In this self-test, a viewer can calculate his or her risk of heart attack. Areas of risk covered include diet and cholesterol, exercise, smoking, high blood pressure, and weight control. Produced by Stanford University; 60 minutes.

-Off Your Duff The purpose of this videotape is to motivate people to increase their activity levels. Produced by Boston's educational TV station; 60 minutes.

— On Your Mark, Get Set, Exercise A sequel to "Off Your Duff" on the specifics on how to start an exercise program to achieve cardio-vascular-pulmonary fitness. Produced by Sandia Labs, speaker Dr. Hemming Atterbom; 35 minutes.

-Live or Die This videotape vividly demonstrates how our life-style has a bearing on our chances to live longer . . . or not. Produced by Perennial Education; 30 minutes.

- Progress Against Breast Cancer This videotape discusses early detection, diagnostic techniques, treatment, and rehabilitation of breast cancer. Produced by the National Cancer Institute; 15 minutes.



BILL SPENCER, late of Sandia Livermore (8100), but now manager of Xerox's Palo Alto Research Center, returned to Albuquerque and the University of New Mexico recently to accept this award during commencement ceremonies recognizing his originating role in the development of the insulin pump. While at Sandia, he worked closely with researchers at UNM's Med School going from concept to a working device, and the implanted insulin pump now offers promise of a quantum improvement in the treatment of dighetes.

## **Events Calendar**

May 28-31, June 4-7, 11-14—Adobe Theater, "Lovers and Other Strangers," 8:30 p.m., reservations 898-3323 after 2 p.m., Wed.-Sun. during runs.

May 29-30—An Evening of Opera Scenes, Albuquerque Opera Theater, 8 p.m., Stage One, UA.

May 29-June 7—"A Tribute," Albuquerque Little Theater, Tues.-Fri., 8 p.m.; Sat., 6 & 9 p.m.; Sun., 2 & 8 p.m., 242-4750.

May 31—Chamber Orchestra of Albuquerque, Baroque Festival, 4 p.m., First United Methodist Church, 4th & Lead, 243-5646.

June 12-14\*, 19-21\*, 25-28\*—Albuquerque Civic Light Opera, "Show Boat," Popejoy, 8:15 p.m., \*2:15 p.m., 345-6577.

#### **Congratulations**

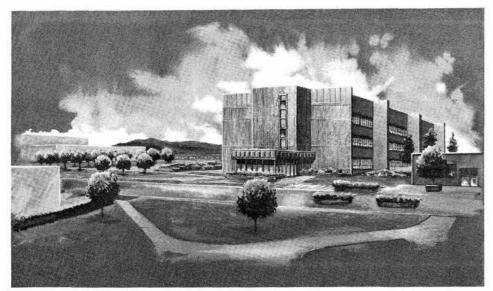
To Josephine (2613) and Ben Harris, a daughter, Samantha Emilia, May 11.

To Pamela Gogan (1474) and Michael Harada, married in Albuquerque, May 15.

To Mr. and Mrs. Juan Espinosa (1765 — Juan is an OYOC attending Stanford), a daughter, Jessica, April 30.

To Michael (4721) and Helen (2432-1) Quintana, a son, Enrico Carlo, May 7. To Karen (1762) and Russell (3155) Smith, a daughter, Kelly Jean, May 15.

The ILC is open from 8 a.m.-4:30 p.m. Arrangements to see a videotape can be made by contacting Olivia Harris, 4-3396. If a time charge number is needed, the employee should discuss this with his or her supervisor.



SOON TO BE BUILT—The Weapons Laboratory Building as viewed from the southeast entrance of Building 912.

CREWS move MO3 to make way for new Weapons Lab Building at Sandia Livermore.

# Site Cleared For New Lab Building

Another step in locating the new Weapons Laboratory Building (901) at Sandia Livermore was taken recently with the moving of a trailer complex (MO3) from the site of the planned structure south of Bldg. 911.

These trailers, like many others on site, will continue to be used until 901 is completed in late 1983. MO3 has been relocated south of the warehouse (Bldg. 927) where it will house the plant engineering organization.

To make way for the new lab building, it will also be necessary to relocate another set of trailers within the next year.

The \$16.8 million Weapons Laboratory Building is currently being designed, but construction funds have not yet been authorized. The three-story facility will be a near duplicate of the Safeguards lab and office building (821) at Sandia Albuquerque, completed in 1980.

Arlyn Blackwell (8200) has been helping to prepare the proposal for DOE funding of the new building. "This building is crucial to continued advances in weapon technology at Livermore," he reports. "These advances and the challenges they provide are vital to maintaining the vigor of our technical staff. During the 10 years we have been seeking this building's approval, it's been necessary to use trailers and the like to house our weapon technology activities. The Weapons Laboratory Building will enable us to maintain the long-term strength of our weapons development staff. If our funding request is approved, construction can begin in late 1982."

The Livermore structure will differ from SNLA's Safeguards building because of more stringent California seismic standards as well as revised entrance requirements. Building design is the responsibility of Plant Engineering Design Department 3640 in Albuquerque. Building construction, occupancy, and site development is the responsibility of Department 8250 at Livermore.

#### Congratulations

Jack (8314) and Susan Hyzak, a son, Kevin Joseph, April 8.

Bob Dibble (8353) and Dona Crawford (8332), a daughter, Julia Anne, Jan. 19.



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### Take Note

John Smugeresky (8312) left at the end of April for a six-month stay as guest scientist at the Max Planck Institute for Metal Research in Stuttgart, West Germany. He will be working in the powder metallurgy laboratory as a part of a scientific exchange program funded by the Institute. His wife and two children will join him in Stuttgart.

Five women from Sandia Livermore participated in a recent career conference for 7th to 12th grade women at Chabot College Valley Campus. Called "Expanding Your Horizons In Science and Math," the workshops offered information and demonstrations in several technical and scientific areas. Sandians taking part were Terry Schoeppe (8353), Alyce Joyce (8423), Debbie Wolverton (8442), Judy Hicks (8423) and Susan Gancas (8424).

In the Sandia Mixed Handicap Bowling League, the first-place team included Shirley Carson (8336), Paul Dominguez (8161), Don Knaple (8273), John Carson, Bill Baer and Debbie Dominguez. Second-place team went to Jackie Garrett (8214), Don Starkey (8152), Dorene Allen (8100), Jim Naphy, Ted and Sandy Szczerbin, Larry and Lois LaFrombois.

John Lippold (8314) recently received the Charles Jennings Award for the best research paper from a university published in *The Welding Journal* in 1980. The presentation was made at the American Welding Society meeting in Cleveland. The paper, entitled "Solidification of Austenitic Stainless Steel Weldments: Part 2—the Effect of Alloy Composition on Ferrite Morphology," was co-authored with W. F. Savage, a professor at Rensselaer Polytechnic Institute.

Rudy Johnson (8312) has been awarded

second place for best paper published in *Plating and Surface Finishing* magazine during 1980. He co-authored "Optimization of Gold Plating for Hybrid Microcircuits" with John Dini (formerly 8312, now with LLNL) and will receive a \$250 award and a medal at the Electroplaters' Society Conference next month.

#### Sympathy

To Jim Spirup (8261) on the death of his father-in-law in Idaho, March 7.

To Bob Lebow (8257) on the death of his mother-in-law in Portland, Ore., Feb. 17.

To Charles Oien (8444) on the death of his father in Missoula, Mont., April 2.

To John Daniel (8265) on the death of his father in Livingston, Mont., May 1. To Elmond Holbrook (8411) on the

death of his father in Orchard, Neb., May 6.



ARNIE RIVENES (8162) received a certificate of appreciation recently from Herm Roser (left), manager of ALO and Assistant Secretary for Defense Programs-Designate. The commendation to Arnie was for the period September 1978 through November 1980 "for his leadership, initiative and outstanding accomplishments during the Phase 3 period of the W84 program" of which he is manager.

# fixe Miback

Q. Since I've come to Sandia [four years], I've noticed secretaries frantically trying to get time cards over to payroll by 9:00 on Fridays.

How about having time card drop-offs in some of the buildings, i.e., 880, 892, 890, 836, 805, etc.?

A. Your Feedback concerning hand-carrying time cards to Payroll is timely inasmuch as the Employee Accounting Division is currently reviewing the tardiness of many line organizations in submitting time cards. The deadline for time cards to be in Payroll is 9:00 a.m., Friday, in order to meet the deadline of the off-Base processor of the cards.

Special messenger and/or Payroll pickup service is not available for time cards, but the solution to the problem you describe is to assure that time cards are made ready Thursday morning and placed in the outgoing mail before the Thursday afternoon pickup. Occasionally, a corrected time card may have to be submitted later.

We appreciate your interest in this matter. If time cards are not ready by the Thursday p.m. regular mail pickup, it is the responsibility of the organization to handcarry those time cards to Payroll before the 9:00 a.m. Friday deadline.

C. R. Barncord - 3200

A. It seems unfair that long-service employees be granted the same amount of vacation time as new employees. While the 24 days/year seemed ahead of its time 30 years ago, it certainly is not the case today! The 1980 median plan in industry shows the following:

[Length of service/vacation days]:

20 yrs./25 days

25 yrs./30 days

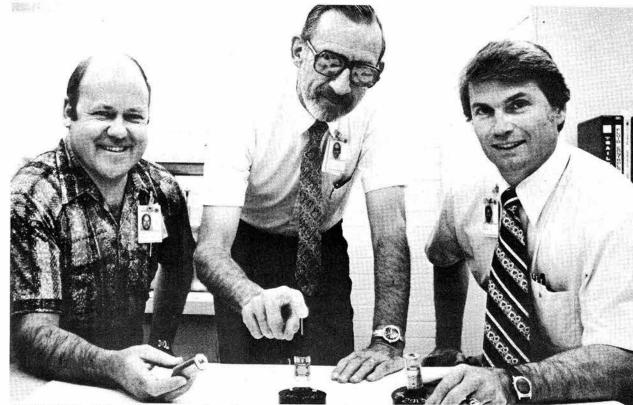
30 yrs./35 days

What is Sandia planning in this area?

A. In acknowledging your Feedback suggestion to enhance the Sandia vacation benefit of "long service old-timers," we have reviewed the history of our 24-day vacation benefit.

As one of those old-timers, you will recall that the University of California's vacation benefit provided for 24 days annual vacation in 1949 when Western Electric contracted with the Atomic Energy Commission to operate Sandia Laboratories. Actually, the 24-day benefit was already in effect for those University of California-Los Alamos employees who were transferred to Sandia at that time. The vacation benefit then became a fervent bargaining item which was resolved and included in the Labor Agreement dated October 1, 1949.

As you have indicated, 24 days of vacation per year is a generous benefit, particularly when you have the advantage of it for an entire career of service. For example, when you compare 30 years at Sandia with the vacation benefits of 10-15 days per year that most companies have for the first 15 years of service, Sandia's benefit totals out to be significantly better in total



INVENTORS of the MC2913 acceleration switch, recently patented by DOE, are John Middleton (2325), Harold Schildknecht (2324) and Joe Abbin (2324). The switch is used in the Mk4 Trident arming, fuzing and firing system.

# Patent Awarded For Weapon G-Switch

DOE has been awarded a patent for an acceleration switch (g-switch) invented by Joe Abbin (2324), John Middleton (2325), and Harold Schildknecht (2324). The switch, designated MC2913 is part of the Mk 4 Trident arming, fuzing and firing system.

The switch, basically a spring-loaded piston inside a fluid-filled cylinder, reacts to deceleration during atmospheric reentry to provide a switch closure to initiate the weapon's arming and firing sequence at a precise g-level. The switch is unique in that fast rising accelerations (such as a shock wave resulting from a nearby exploding missile) will momentarily halt the piston, rather than allowing it to advance prematurely. After the shock pulse has decayed, the piston continues its movement providing a switch closure at the proper g-level.

This shock discrimination capability is accomplished through the design of the orifices for fluid flow—one in the center of the piston and another between the piston and case. The larger center hole is the primary flow path, but this is closed by a spring-loaded orifice plate if the switch

experiences an extraordinary g-pulse. It will open again when the acceleration returns to normal. This effectively causes a momentary "braking action" on the piston.

Several built-in features contribute to the switch's high accuracy (plus or minus three percent) over its operating environment and stockpile life. The cylinder is completely filled with an inert silicon fluid during assembly (no air bubble) and an accumulator bellows keeps the fluid pressurized during temperature-related expansion and contraction. A jackscrew allows g-level adjustment before the final seal and welding. In addition, a bimetallic disk compensates for temperature changes to insure that the switch contact closure point remains constant.

The switch's piston travels on eight roller bearings mounted on a flexible axle which provides protection from transverse shock loading and allows the piston to move by roller rather than sliding action.

The small component—less than three inches long and one inch in diameter—contains 40 parts, some of them machined to tolerances of .0005 inch.

vacation days with its constant 24-day benefit.

Sandia continually monitors its total benefit plan. Our vacation benefit compares very favorably or exceeds those of similar companies. Sandia has no plans to alter its vacation benefit at this time.

C. R. Barncord - 3200

Q. It would be appreciated if consideration were given to extending the services of Sandia Medical to give physician-prescribed allergy injections to Sandia retirees. This service would not cost much and would effect a valuable savings for that group of ex-employees in whom, I am certain, Sandia still maintains an active interest.

A. We've been administering allergy injections for at least 20 years; I have no

idea why such a procedure was instituted but it was probably to save the employees time off from the job and not for reasons of economy. With present insurance coverage, the employee would pay only 20% of the cost of the injections. The major economic advantage to the Labs, i.e., the loss of time from work, would not apply to retirees.

We do, of course, have a concern for retirees and would like to accommodate the request. However, the workload would not increase our cost as much as it would place a hardship on a staff already quite busy in quarters which are very small. Therefore, I am reluctant to add any increase in workload if it can be avoided. These circumstances may change in the future and, if so, such a request will be reconsidered.

Paul B. Mossman, M.D. - 3300



FEELING GOOD after winning the Business Women's Relay are Ruth Hawley (3531), Tracy Snyder (4745), Dora Montoya (4410) and Carolyne Hart (4756). In the event, each ran a 100-metre leg.



WINNERS of the Industrial Relay, another  $4 \times 100$  metre event, are Anthony Thornton (5633), Sam Stephenson (1537), Tom Hesch (1474) and Roger Assink (5811).

#### Class Will Tell

# Sandia's Corporate Cuppers Do It Again—We Won

It's becoming a habit—almost—and if the Labs takes the Corporate Cup a third time next year, we get to keep it.

The Corporate Cup is a track event in which teams of athletes from different firms around the state compete in some 12

IT'S A YOUNG MAN'S GAME, so said Chris Roudabush to his Mom, Bonnie (1223), after she completed her 400-metre run in the Women's Relay. Chris is 15 (months).



SMALL DELUGE—Last year it was hot, this year it was wet. Downpours on Saturday delayed meet.

races ranging in length from 400 metres up to 10 kilometres. The Labs team, 80 men and women, this year racked up 182 points, putting us well ahead our arch rival, Los Alamos, who came in second with 151 points.

But it wasn't all that clear cut and, indeed, Los Alamos was ahead during much of the two-day event. Then Coach Henry Dodd (4756) gave our athletes the Gipper speech Sunday morning, and the Sandians ran as if possessed.

These photos show a few of them. The Corporate Cup trophy and seven team trophies will be put on display shortly in the first floor hallway of Bldg. 802.



COACH Henry Dodd (left, 4756) did double duty at the Corporate Cup, running in several events. Tom Hesch (1474) walks with Henry following President's Relay.

Other teams included runners from Digital, GT, PNM, APS, APD, USGS and Ranchers Exploration.



COMING ON STRONG is Chuck Atencio (left, 3432) and, in the Sandia T-shirt at right, Larry Ruggles (4232). Labs had two teams entered in President's Relay in which legs of 1600, 800 and 400 metres were run.

## Take Note

Colloquia coming up: on June 3, "The Superconducting Computer—Josephson Technology," by Juri Matisoo from IBM; on June 10, "The Space Shuttle, Ramifications and Impact," by R. F. Thompson, manager of the Space Shuttle Program. Both will be held in Bldg. 815, outside the Tech Area, at 10 a.m.

A couple of other activities for children out of school include one at the Base library which offers a summer reading program beginning the week of June 14. Weekly activities will be presented in the library beginning June 17 at 10 a.m. More information on this program is available at the circulation desk at the library. A second, a creative drama workshop for kids, is open to ages 5 to 17 and runs weekdays from June 8 to 19, starting at 9 each morning. It's free, it's sponsored by the Que Pasa Rec Center, it's directed by Katheryn Katzenburger and the contact is on 4-5420.

Bond Campaign chairman Art Eiffert reports that as of May 21 the percentage of Sandians buying U. S. Savings Bonds had increased from 88.6% to 93.1%. The number of employees purchasing bonds through payroll deduction increased by 4%—that's 356 people who signed up. Art says that this is an interim report and that final figures will be forthcoming in a couple of weeks.

Parentcraft is the name of an outfit here in town that offers a program especially designed for single mothers-to-be, providing information, support and friendship. The group meets on Tuesdays at 7 p.m. at Central Methodist Church, 215 Pine NE. Health, child development, child guidance, personal development and family development are among the topics covered at meetings. Contacts are Mrs. Doug Hendren, 294-8109, or Mrs. Ruby Curtis, 881-6818.

The interest rate on Series EE Bonds purchased beginning May 1 is being increased from eight to nine percent, compounded semiannually, when the bonds are held to maturity. The term to maturity is being shortened from nine to eight years. In addition, the interest rate on Series HH Bonds purchased beginning May 1 is being increased from 7½ to 8½ percent to their original maturity, which remains at 10 years. Interest on these bonds is paid semiannually by check. The action will also increase the yield to maturity on outstanding Savings Bonds and Savings Notes.

The YWCA is again offering its summer day camp to boys and girls, ages 6 through 13, at the Blue Triangle Camp in Tijeras Canyon. Five two-week sessions begin June 8 and continue through Aug. 21. The \$62



SANDIA PHOTOGRAPHERS Russell Smith, Jim Pennington and Odessa West (all 3155) were recent winners in a photo competition of the Industrial Photographers of the Southwest. Russell took a first and second place award in black and white; Jim a third place in color; and Odessa, a second place in off-the-job black and white.

cost (plus \$3 membership) covers bus transportation, food, craft materials and insurance. A number of other camping programs are directed to older children and those who are physically handicapped. Contact: Shirley Sallach, camp director, 247-8841.

Sandia secretary Mary Ann Dew (1415) is a member of a Sweet Adeline quartet which will appear on KOB TV's "PM Magazine." Filming took place last week in Old Town. The show will be broadcast June 11 at 6:30 p.m. on channel 4.

Gerry Laursen, who retired in 1975 after working 24 years in field test, was visiting

# Bell Labs To Build New Facility

In an AT&T release dated May 18, Bell Telephone Laboratories announced that it plans to build a major technology development facility in Freehold Township, N.I.

Activities there will directly support the Bell System's effort to meet the nation's needs for sophisticated new "information age" communications services.

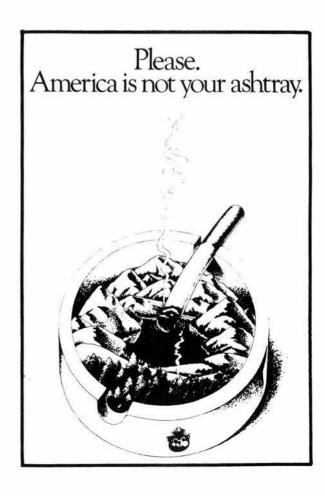
The new facility, to be located on a 265-acre tract at the northwest intersection of Routes 9 and 33, will house about 2500 employees developing computer software and other systems to improve telecommunications services. Their work will help make the telecommunications network—in fact, the world's largest computer—an increasingly versatile tool for business and families.

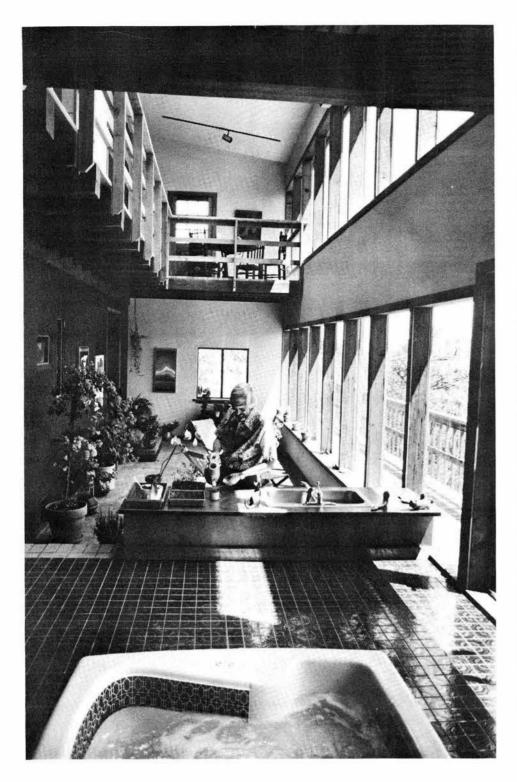
Construction of an initial building, with about 600,000 square feet of space, is expected to begin in late 1982. Current plans call for first occupancy in mid-1985.

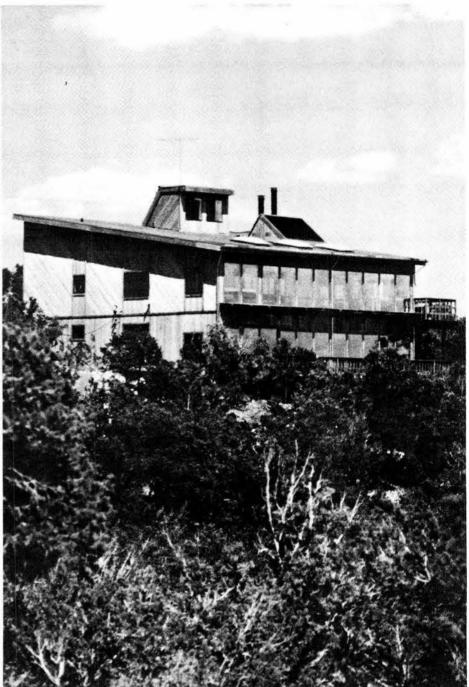
Bell Labs now employs some 15,000 people at 11 locations in New Jersey and a total of some 22,000 people nationwide.

in Albuquerque recently. He reports that he has purchased a house in the Argentine summer resort city of Volcon where he is a volunteer teacher for the Baha'i Faith. Before moving to Argentina, Gerry spent three years in Haifa, Israel. Gerry has been busy recently installing a solar greenhouse, a solar hot water system and a solar-powered freezer in his new home.

A TV science program, Fast Forward, is now being underwritten by Sandia. It appears at 6:30 p.m. on Sundays, Channel 5, and is repeated at 12 noon on the following Saturday. Programs coming up: May 31, Medicine; June 7, Military Communications; June 14, About Computers; June 21, State of the Art; and June 28, Implications.







GARY JONES (4724) putters around his two-story greenhouse. The spa is in the foreground. At right is an exterior view of Gary's passive solar house.

In Cedar Crest

# Solar Engineer Builds Solar House

When Gary (4724) and Carol Jones began designing their solar house, they had in mind something a little over 2000 square feet. "But by the time we put everything we wanted in the house, it came out to 4000 square feet, of which 1000 square feet is greenhouse," says Gary. "In addition, there's a study, darkroom, two big bedrooms, an atrium, and a free-standing spiral staircase.

"The house is located on top of a hill in Cedar Crest with a completely unobstructed south view," he continues. "It's heavily passive solar—the south side is a two-story greenhouse with 528 square feet of glass. It's an 'envelope house' which means it's constructed so that the hot air from the greenhouse is circulated along the ceiling to the north end, down the north wall, and then under the house back to the greenhouse. Unlike other envelope houses, the circulation of the hot air is driven by thermostatically controlled fans. The envelope effect makes possible a uniform temperature throughout the house-the north rooms are as warm as the south rooms. Even after three cloudy days this February, the temperature of the lower level bedroom stayed at or above 55 degrees."

Backup heating is provided by two fan-driven, glass-doored, double-sided fireplaces that act like downdraft furnaces. They draw in and heat 400 cubic feet of outside air per minute. There are also a couple of portable baseboard heaters, in case all else fails.

"Although we have a solar hot water system with electric backups," says Gary, "the spa in the greenhouse and the sauna in the bedroom are both electrically heated. These are our biggest energy users. The total electricity bill since we moved in in January has been about \$100 a month. Since we don't have any other fuel, this is our total utility bill. I've also used one-third of a cord of wood since then for heating. I expect that next year the system will perform better than it has this year as the house warms up or stabilizes, especially after the summer.

"We decided two years ago to build a solar house. Construction began last year and it took six months to complete. We worked with Tom Sutton—a local designer and general contractor. He got so involved with every phase of construction that Carol thought he wasn't going to let us move in, or might even move in with us.

"I guess the most impressive thing about

a passive solar house is the quietness—there are no large blowers going on and off. And tropical flowering plants like bougainvillea and hibiscus grow beautifully in a greenhouse—the hibiscus is growing at the rate of one or two new blooms a day."

The fact that Gary works in Solar Energy Projects Department 4720 provided no little inspiration for his own passive solar house. "For this house with its excellent southern exposure, it was the only way to go," says Gary. "And it works."

#### **Pat Newman Going to Russia**

Sandia's scientific translator, Pat Newman (3144), leaves June 17 for a six-week language study program in Russia. Sponsored by the American Institute for Foreign Study, the program is primarily for college and graduate students, but Pat will be with a group in a supplementary program for technical translators. She will spend mornings in language classes six days a week and afternoons visiting places such as the Lenin Library, Patent Office and Translator's Union. She will be in Moscow until July 9, then in Leningrad until July 30.

# Lion In The Deep

[Ed. Note: Writer Phil Mead of Management Staff 400 developed this article. It's off-our-beaten-path, but we think LAB NEWS readers will find it of interest.]

"Go fetch" is what we tell the dog in the morning when we want him to pick up the newspaper in the driveway. But that command has taken on a different meaning for Chet Chestor. He's a quality assurance engineer in Flight & Lab Test Development Division 1422 and works with Navy people in test firings of stockpile units of the W44/ASROC—a nuclear depth charge that is denuclearized for this purpose.

"Go fetch" is what the Navy man says to his sea lion when he wants the animal to descend into the depths to attach a line to the fired ASROC. That's right—sea lion. To recover objects from underwater, the animals are trained and handled by a special Navy team. The project is called QuickFind and has been in operation for more than a decade.

The sea lions used are not the large, bewhiskered, barking beasts that you see around San Francisco but are smaller, smoother animals resembling and related to the fur seals of the North Pacific. Navy sea lions have sleek, dark skins, average four to five years in age, and weigh 120 or so pounds. When not retrieving, they are kept in holding pens at Navy installations.

The ASROC Joint Test Units (JTUs) are brightly colored and carry a small pinger that generates an audio signal. At depth, the animals home in on the pinger, then switch to a visual mode for the final run to the unit. As a further help, the JTU releases a dye marker as well.

When the ASROC JTU enters the water, its instrumentation records weapon operation. These data are contained within a tape recorder inside the JTU case, along with a telemetry pack, and it is these two items that Sandia is interested in recovering.

The sea lions used in QuickFind are highly trained and somewhat spoiled. At first, porpoises were tried but because of transportation problems, the Navy later opted for sea lions, which are also more reliable and usually perform their tasks without fuss. One established a depth record recently with a successful trip to a JTU in 350 feet of water.

The sea lion handlers—Navy people—are themselves young, large and vigorous, as befits people who lift 125-pound animals into and out of the water daily. The men enjoy their work and try to develop rapport with the animals—but they don't go in the water with them. Man and animal communication is chiefly through the medium of frozen fish.

For a recovery, the lion is given a Neoprene-covered bite plate to which a



SEA LION prepares to grab mouthpiece he will attach to submerged ASROC. Spring-loaded clip on mouthpiece is jammed by animal over U-bolt on tail of weapon. Note line and spool; after clip is attached, test unit is hauled up. Men are Navy personnel assigned to Project QuickFind.

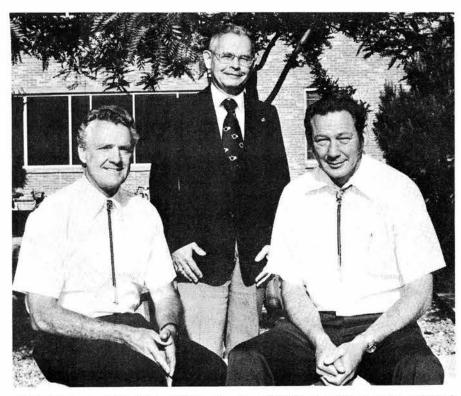
spring-loaded clip is attached (see photo). Holding the bite plate in his mouth as he dives, the sea lion shoves the clip into a U-bolt on the rear of the JTU, and it is then pulled to the surface by line.

At least, that's the idea. However, there's a lot going on underwater that appeals to sea lions, and they sometimes come back looking for a reward of fish without having done the job. Being used to this, the handlers send the animals back down as many times as necessary. Once, on a dive off the Virginia Capes, a sea lion named Fat Man took off to investigate this new ocean (they're not native to the eastern seaboard). He was found two weeks later near Atlantic City, New Jersey, 700 miles away, still wearing his harness.

Fat Man escaped again in Hawaii and is occasionally still seen in fishy circumstances off one of the islands. Lt. Biff Daugherty, the Navy officer in charge of QuickFind, says that Fat Man was carried as AWOL for a time but is now considered as having deserted.

Most of the JTUs drop into water less than 300 feet deep, but occasionally a deeper firing is required and, for several months, an ASROC unit has lain on the bottom in 780 feet of water. The Navy intends to use an unmanned deep submergence vehicle to recover it, to the chagrin of the QuickFind people who have complete faith in the ability of their animals to recover it even at that depth and would love to give them the chance.

# Retiring



RETIRING—Jack St. Clair (4741), Les Dye (3212) and Bill Hoagland (4314).



Daniel Vallejos (3423)



Frank Zamora (1485)

### Fun & Games

Exercise to music—A women's exerciseto-music class starts June 2 at the gym, running through July 2 on Tuesdays and Thursdays from 12 to 12:30 p.m. Supervisory approval may be needed because of the travel time involved in participation. Contact: Mary Self, 296-4137.

Summer soccer—Plans are in the works for a summer soccer league under the sponsorship of the Labs Rec Program. Both men and women employees and their spouses will be eligible, and the league will accommodate all skill levels-from none to superstar. Contact: Darryl Bouchard, 4-8634, or Tom Lenz, 4-8486 or 766-7557.

Chess—want to play? The formerly active group is showing signs of life, so if you're interested, give Tom Lenz a call, 4-8486 or 766-7557.

Woodworking-The Albuquerque Museum is offering a two-day workshop in woodworking by Ruben Montoya, noted Santa Fe furniture maker and wood carver. It will run on Saturday, June 6, from 10 to 4 and on Sunday, June 7, from 1 to 4 at the Museum. Registration deadline is June 4 and the cost is \$20.

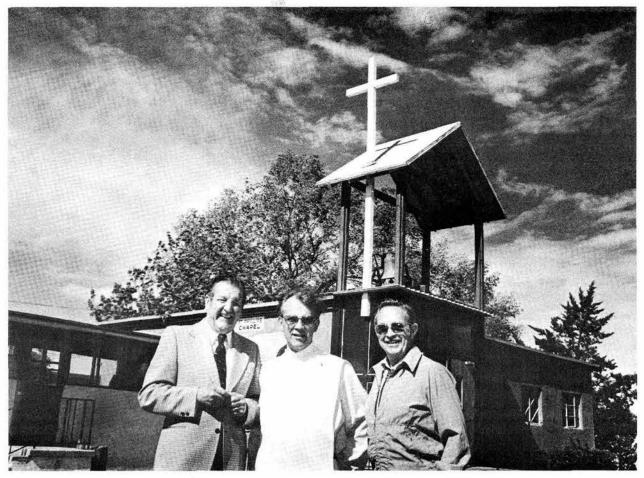
Tae Kwon Do-A demonstration of this Korean-style karate will be given at the Que Pasa Rec Center on Tuesday, June 2, at 7:30 p.m. Blackbelt holder Edward Parker, his students, and experts from the community will take part. It's free.

Volksmarch-You can run, jog, skip or hobble, but most volksmarchers walk, so we are told, over the prescribed 10 and 20 km course. It starts at 8 a.m. at the Que Pasa Rec Ctr. on Base and heads out toward Manzano Base. Date: Saturday, June 6. Volksmarching is popular in Germany with thousands of participants who avidly collect awards and certificates. Local contact is Lt. Marianne Tufteland, 4-7815. LAB NEWS does not have entry forms on this one.

Archery—An archery demonstration is taking place at the Que Pasa Rec Ctr. on Sunday, May 31, beginning at 2 p.m. Archers will show their stuff and provide some helpful hints on bowmanship.

William McGonagall (1830-1902) was quite possibly the world's worst poet. So, at least, the latest edition of his poems boldly pro-claims him [The World's Worst Poet: Selections from "Poetic Gems" by William McGonagall, Templegate Publishers, 1979]. There have been, to be sure, other candidates for that title. In England, in 1965, there was even a competition organized, with Peter Sellers as one of the judges, to see if anyone could write as badly as McGonagall. Many were called but none was chosen.

Steele Commager in Atlantic



BOARD MEMBERS Bill Kraft (1410) and Bill Gardner (1500), right, discuss maintenance projects at the Good Shepherd Manor with Brother Vincent. The nondenominational facility provides residence and care for the elderly.

#### Good Shepherd Manor

## The Board Has Working Members

Being a member of the board of directors for most organizations is a responsible but relatively easy job-meet once a month, help make some policy decisions, review the budget, and leave the work for the professional staff to carry out. Not so with the board for the Good Shepherd Manor, a non-denominational home for elderly men and women in Alameda.

Bill Gardner (1500) has been a board member of the Good Shepherd Manor for almost 20 years. He's fixed septic tanks, repaired roofs, rewired kitchens, installed smoke alarms, repaired automobiles and mechanical equipment and, several years ago, did the design and drawings for a 24-room addition to the Manor.

A couple of weekends ago, Bill and Bill Kraft (1410), another member of the board, installed a walk-in freezer. Other Sandians who are board members and contributors to the general maintenance of the Manor are Bob Hepplewhite (3650), Leo Dunn (4541) and Marv Guier (3242).

The board also has its meetings once a month and reviews the budget.

"Residents pay \$400 a month for their board and room," Bill Gardner says, "which is very reasonable these days. It's the nicest and cleanest facility of its kind in this part of the country. There's always a Brother on duty-the Manor is operated by the Brothers of the Good Shepherd, a Catholic order, and they are dedicated, capable people. Our financial concern right now is that several of our rooms are empty. We hate to see the space wasted and, frankly, we need the money for our operating expenses. All improvements are paid for through contributions. The only requirement for residency is that the person be ambulatory."

The Manor has rooms for 44 residents. It's located in a pleasant setting among the



BILL GARDNER (1500), a member of the board of Good Shepherd Manor, handcarved this sign.

giant cottonwoods of the North Valley. A dining hall, TV lounges, and library reflect a quiet comfort. Free transportation is provided several times a week to visit senior citizens centers or for personal

"My 98-year-old father-in-law has lived in the Manor for several years, now," Bill Kraft says. "He likes it fine. He has friends, card games and social evenings in the lounge watching TV or visiting. We visit often and we don't worry. He has the best of care."

Bill would be happy to answer any questions about the Manor. Give him a call on 4-5742.



To the dismay of the Irish National Road Safety Organization, the title of "Irish Safe Driver of the Year" was awarded to a Welshman. Worse still, second place went to an Englishman. The two Irish drivers in the test did not place. — Family Safety

# **MILEPOSTS** LAB NEWS

**MAY 1981** 



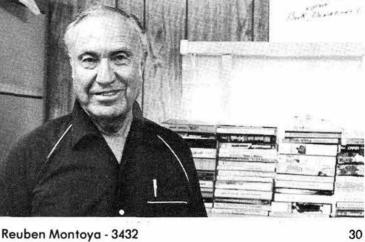
Pete Gallegos - 2327



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Reuben Montoya - 3432



15



Oliver Davis - 2423

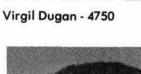


Hugh Lewis - 2326



Willard Rappleyea - 1481 30











Tony Lopez - 3154



20



Frank Rebarchik - 2551



Frank Lucero - 2631

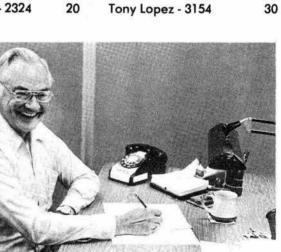


Herschel Rogers - 5627

Fred Pena - 3154



Walt Treibel - 1414





Juan Ortiz - 3417



Damacio Sandoval - 1482 25

25



Vivian Schmedeman - 3254



Jim Karo - 2432

35

35

## My Favorite Old Photo



[Got an old photo that means a lot to you? Bring it over to the LAB NEWS and tell us about it.]

WHEN Dad was in his early 20s in 1916, he was a steel mill worker in Fort Wayne, Indiana. In those days, off hours weren't spent watching TV or driving around, and many young men were fairly accomplished musicians. This photo shows Dad (second from left, Earle Paxton) and his friends and the instruments they played. Dad, for instance, could play the banjo, mandolin and, for serious music, the cello. Note the oversized guitar—I think it has 16 strings. I regret to say that Dad didn't pass on his musical talents. (Earle Paxton—400)

#### JUNK•GOODIES•TRASH•ANTIQUES•KLUNKERS•CREAM PUFFS•HOUSES•HOVELS•LOST•FOUND•WANTED•& THINGS

#### **CLASSIFIED ADVERTISING**

Deadline: Friday noon prior to week of publication unless changed by holi-day. Mail to: Div. 3162 (M0125).

#### RULES

- 1. Limit 20 words.
- One ad per issue per category. Submit in writing. No phone-ins.
- Use home telephone numbers.
- For active and retired Sandians and DOE employees.
- No commercial ads, please 7. No more than two insertions of
- same ad.
- Include name & organization. Housing listed here for rent or sale

is available for occupancy without regard to race, creed, color, or national origin.

#### MISCELLANEOUS

- KITTENS, all black, 6 wks. old, free to good home. Romig, 884-2490.
- CAMBRIDGE PIANO, walnut finish, \$600. Lackey, 898-6638.
- 4 DATSUN 14" rims, 4-hole; white toilet, \$10; Norge gas dryer, \$50; Disston cordless elec. grass shears, rechargeable, \$8. Padilla, 877-2116.
- RAILROAD TIES, 3 lg., 3 sm. Webb, 294-8341 after 5.
- WARDS 25 cu. ft. chest freezer. \$300; wood dining table w/6 upholstered chairs, needs refinishing, \$35. Smythe, 831-2836.
- CREEN DOORS: 1 type, \$25; 2 wooden screen doors, ", \$10 ea. Marchi, 299-8516.
- ODYSSEY video game by Magnavox (pong & soccer), \$35; std. typewriter, \$35; brass firetool set, \$25. Barker, 294-0254.
- TWO outboard motors, 40 hp Scott Atwater, elec. start, parts, repair manuals, one runs, other partially disassembled. Clark, 869-2569.
- CONSOLE w/2 doors & mirror, Italian provincial, distressed antique finish w/gold trim, \$95. Wagner, 881-4840.
- TITLEIST Acushnet golf clubs, cost \$500, sell \$250; S&W K-22 target revolver, \$225; S&W Model 52, sell or trade; want S&W K-38 & Colt 45 ACP. Ma, 883-4438.
- ROCKET CHROME RIMS, deep dish, set of 4 w/lug nuts, locking lug nut for each wheel, almost new, fits Camaro, \$200. Sandoval, 293-6003.

- SCOPE Tektronix 555 dual beam, 21A-22A timebase, 2 L plug-ins, scope cart, \$300 or best offer. Chu, 296-4008.
- WARDROBE closet, metal, brown, 42"x21"x6'; flowered traditional sofa, 96"x34"; stereo AM-FM console w/cassette player recorder, Sears. Bureta, 292-5421.
- MATTRESS & box springs, firm, extra long, twin size, \$50 for the
- pair. Harvey, 298-8278.
  21' SHASTA, sleeps 8, extras, AC, heat, awning, AM-FM stereo, cassette, 8-TK. French, 821-3711.
- SCREENDOORS: 80% x31% x1" metal sliding screen door, 80x31½x ½"; 2 French doors, 5 glass panels, 79 34 x32 x1 34". Olson, 268-5312
- POOL TABLE w/new cues, \$125; china cabinet, \$250; 1 pr. lamps, \$80; gas dryer, \$60. Strance, 298-0258.
- CARPET, 9x12 green & brown shag w/foam backing, \$30. Miller, 266-9377 after 7.
- FREEZER, 12 cu. ft. upright, Gen. Elec. Fisher, 881-8072.
- CERAMIC KILN, Duncan 1020 w/shelf kit, 23½"x20" used three mos., \$400; assorted ceramic Christmas molds & greenware. Decker, 898-
- 23" COLOR TV, console cabinet, \$100. Prevender, 299-5253.
- BABY CRIB w/mattress, \$4; black 12x15 carpet, \$35; push mower, \$35. Katz, 821-8061. GOLF CLUBS, complete set of irons,
- 3 wood, bag, tow cart, \$40 (for beginners). Jarrell, 293-9671. FULL SIZE MATTRESS & box springs;
- elec. typewriter; sofa & chair; cockend tables, more. Schwarz, 299-8709.
- PUPPIES, free; part Golden Retriever.
- Minor, 865-5117 after 6. ANTA FE OPERA: 1 tick "Rake's Progress"; Aug. "News of Day"; sell or trade. Estle, 293-4871.
- WHEEL SPACERS for Subaru, allow larger tires on rear wheels, custom made, not on market, \$35. Casper,
- FOR SOLAR PROJECT: uncoated fluorescent tubes, 48" long, 15 cents ea.; 3000-lb. hunter's type hoist, \$10; block & tackle hoist, ½" rope, \$10. Stuart, 299-9190.
- TEXAS INSTRUMENT TI99/4 home computer, included TV adapter, cassette cable, 3 plug-in modules, \$575 or best offer. Mercer, 821-6449.
- SCOTT 80w stereo amp, \$60; Scott FM tuner, \$30; Sony reel-to-reel playback, \$30; 4 new albums, \$3.50 ea. Goodwin, 294-6702.
- BOOKS, BOOKS, got a bunch, got to sell-romances, westerns, mys teries, texts, classics. Unbelievable prices. New shipment Sandia

- T-shirts, all sizes, \$6. S. Hwy. 14 Village Proj. LAB NEWS, MO-125 next to Bldg. 814.
- INFLATABLE plastic donut that fits between overhead camper & truck cab top, \$15. VanDenAvyle, 898-
- NEW electric trolling motor, cost \$110, asking \$70. Allen, 299-9075. USED ONCE, Reese equalizer hitch, bolt on for 71 Mercury Montego MX wagon. Lock, 9621 Candelaria
- NE. 296-9798. 78 18' SELF-CONTAINED Wilderness camper, w/shower, sleeps 6, \$2950
- or best offer. Baker, 294-3334. WICKER TRUNK, 24"x15"x16"h, \$40.
- Newcom, 293-5180. FOUR used tires, G70-15, Poly-Glass belted, tubeless, raised white letters, some tread, B.F. Goodrich
- T/A 70, set \$40. O'Bryant, 268-9049. CRAFTSMAN 10" radial arm saw, \$350, new dado kit included. Costales, 268-5260.
- CAMPER SHELL, alum. for Ford std. long wide box, smoked bubble windows, \$150. Erdman, 292-0258. USED chain link fence, 2 sections
- 12'x6' & 10'x6' including gate, \$25; china, service for 8 plus serving dishes, never used, \$175. Harris, 821-8524
- AQUARIUM, 30 gal., some accessories, \$55. Crooks, 296-6182.

#### TRANSPORTATION

- 78 HONDA Express, 750 miles, self starting, 2 baskets, 150 mpg, \$300 firm. Davis, 881-0364.
- VW Dasher wagon, AT, 6000 miles, 27 mpg city, 5-yr. trans-ferrable warranty, \$8000. Baca,
- '68 PONTIAC LeMans 2-dr. HT, 350 engine, AT, PS, PB, AM-FM stereo, vinyl roof, chrome wheels, \$1200 or best offer. Caudill, 268-8274.
- 77 KTM dirt bike, 400 MC-5, 6-spd., tool bag, long knob Metzlers, \$795. Boreff, 298-4365 after 5.
- 74 KAWASAKI 90cc street bike, 5400 miles, 100 mpg, \$370. Hudson, 298-
- '56 VW, runs, \$875; '61 VW, engine just overhauled, new brakes-seat covers & paint, \$1450; '59 VW, Baja body. Padilla, 294-8134.
- 5th WHEEL TT, 3-yr.-old Coachman, 19' Cadet, \$5600; '79 F100 4-spd. towing vehicle, sell both for \$8550 or consider trade for motor home. Padilla, 296-7107.
- 72 CHEVY Nova, 2-dr., 87,000 miles, AT, PS, PB, lifetime J. C. Penney battery, \$750. Armstrong, 265-1045. 77 NOVA V8, AC, AT, PS, AM-FM cassette, custom interior/exterior

- trim, 39,000 miles, \$2800. Tipton, 298-1944
- 78 SUZUKI PE175 off-road motorcycle; It. wt. but powerful, adult ridden, never raced, \$750 (\$100 under NADA). Schkade, 292-5126.
- 72 INT'L. Scout II 304, V8, AT, new tires, brakes & shocks, low mileage, \$1400. Sheldon, 293-0467.
- 70 IMPALA 4-dr., new metallic green paint, Rallye wheels, 12,000 on re-built 350 4BBL, PS, PB, AC, \$1050.
- Warren, 294-5250. 77 250cc Bultaco Pursang (dirt bike). Trujillo, 299-0087 after 5:30.
- 73 VOLVO 144, AC, std., AM-FM radio, uses reg. gas. Jackson, 883-8834.
- 70 OLDSMOBILE Cutlass Supreme 2-dr. HT, AT, PB, PS, AC, \$845.
- Bradley, 298-2263. HONDA SL175, 10,000 miles, \$350; AKC champion Border Terrier male needs a good home. Benson, 268-9727.
- '80 MAZDA 626 coupe sport, AM-FM, AC, 5-spd., 29 mpg. Schwarz, 299-
- '80 PONTIAC Grand LeMans, loaded, ww-radials, wire wheel covers, PS, AC, disc PB, \$6399 but will consider offers. Gallegos, 881-1363.

#### REAL ESTATE

- LOT in Candlelight Estates, or build to suit. Kaushal, 821-2584.
- RENOVATED 3-BDR. house, pueblo style, 1950 sq. ft., assumable 10-5/8% loan, cash to loan and/or REC, Ridgecrest area. Corradini, 266-4307
- 4-BDR. HOUSE, vicinity Copper & Tramway, 9.5% assumable loan, \$48,500. Navratil, 293-5527.
- REBONITO VIEW LOT, 90'x153', blk. 20, lot 4, \$15,000 terms, \$1000 off for cash. Lewing, P.O. Box 1731, Sun City AZ 85372, 602-584-1465.
- 3-BDR TOWNHOUSE w/lg. yd., 1% baths, garage, all appliances, assume 8% loan w/\$15,000 down
- (terms negotiable). Finley, 294-1051. TWO LOTS in 5 Hills sub-division, 1¼ A & 2A, restricted, south of Sedillo Hill, \$10,000/acre. Stuart,
- MOSSMAN, corner lot, 3-bdr., den, near schools, shopping, \$25,000 down, assume 5 % % loan, consider REC. Zucuskie, 881-2972.
- APPROX. 6 acres zones M-1, 1/2 mile south of Gibson, next to 1-25,

- \$72,000, \$2000 min. down. Zucuskie, 881-4086
- 79 MARSHFIELD 14x60, \$2500 down or best offer, 121/2 % interest & take over payments of \$190.54. Furrow, 821-2406.
- 2-BDR., present payment '94 PITI, assumable 7% mtg., \$9000, consider \$6000 down plus REC, total \$33,000. DeHerder, 265-0421.

#### WANTED

- BUY OR BORROW manual for Heathkit Model 01-102 oscilloscope. Burchett, 294-8592.
- CAMPER SHELL for short-stepside truck. Romero, 897-0083.
- HOUSESITTING job or inexpensive rental for summer graduate student: references available from Sandians. Lagasse, 299-8357.
- BUY OR RENT: hay conveyor to reach std. barn loft. Brown, 281-3608
- VISITING physicist from Germany & wife need accommodations for 3 one-week periods or total of 3 weeks, July 4-24. Anyone need a house & yardsitter? Wawersik, 844-
- PING PONG table for hospital-sponsored physical therapeutic program. Hansen, 869-2716.
- ONE PAIR of children's water skis. Skogmo, 898-6013.
- GASOLINE powered rotary lawn mower w/grass catcher. Prevender, 299-5253
- RED WAGON, Jarrell, 293-9671.
- FAIR SIZE unframed mirror (need not be good quality) to set under 16" base fountain; tape deck that can be hooked up to stereo speakers. O'Nell, 892-6754.
- NEED RV to rent July 4-12 to accommodate 6 adults. Johnston, 299-1830.
- DID ANYONE MAKE an 8-track or cassette recording of the Grammy Hall of Fame? McKenzie, 296-0620.

#### **WORK WANTED**

- YOUNG man willing to house sit, day and night. Dancy, 296-2341.
- PAINTING, Inside or outside, by experienced UNM students. Estimates given. Peter Shunny, 265-1620.

# Going to The Dogs?

TONIGHT at Happy Hour, steamship round of beef and baked ham top the buffet menu while the Brougett Brothers hold the bandstand. This is your standard Happy Hour starting right after work with very reasonable prices in effect all evening. The buffet is served from 6 to 8 and the band plays for dancing from 8:30 until midnight.

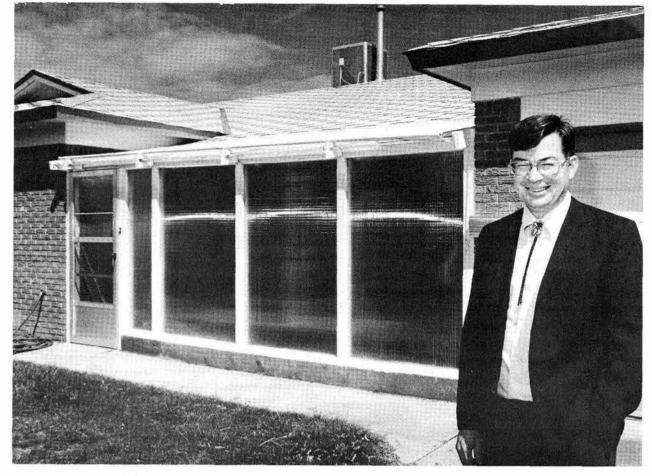
NEXT WEDNESDAY, June 3, is the annual Sandia Labs retiree picnic starting at 4 p.m. The pool and patio will be closed that day except for lapswimming from 11 a.m. until 1 p.m.

HAPPY HOUR on Friday, June 5, features the Freddy Chavez Foundation on the bandstand, king crab on the buffet spread. On Friday, June 12, the Happy Hour event will be a sit-down affair with your choice of London broil or lobster tail. No reservations required.

VARIETY NIGHT on Saturday, June 6, features a recent and popular Walt Disney film called *Pete's Dragon*. A super supper is available starting at 5, the movie starts at 6. Admission is free to members and families. Also, there will be a special door prize given away that evening.

THE BIG ONE this month, and it's one of the biggies for the year, is the annual Hawaiian Luau scheduled Saturday, June 20. You know how this one goes—a fantastic Polynesian dinner served on the patio (or inside if it rains), dancing girls doing the hula and guys doing the flaming sword bit, and all that stuff. Make your reservations by June 13.

SOMETHING NEW AND DIFFER-ENT is a kid's dog show on Sunday, June



A RECESSED south-facing entryway to his home in the NE heights has become an attractive solar greenhouse for Bob Alvis (4719). He poured some concrete, built a framework and covered it with Exolite—an expensive but durable and easy-to-work-with double glaze clear acrylic material which forms the walls of the greenhouse. He has 200 sq. ft. of panel area in the 18-ft.-wide, 6½-ft.-deep, 8-ft.-high structure. Bob spent \$1400 on the project. Tax rebates will return about half of this.Bringing the heat from the greenhouse into the living area of the house has enabled him to "stay even" with the rising cost of natural gas. "We get a lot of pleasure from the plants in the greenhouse," Bob says, "and eventually the investment will pay itself out."

28, at 1 p.m. Members' kids, age 1 through 14, are invited to show their dogs and win prizes for the funniest, smallest, biggest, best behaved and more. Pick up entry blanks at the Club office. Everyone is invited to watch the fun.

TRAVEL DIRECTOR Frank Biggs (4231), pleased with the response to recent short charter bus trips, announces three more—Las Vegas/Hoover Dam, Sept. 13-16, \$110; Canyon de Chelly, Oct. 24-25, \$78; and Juarez/Carlsbad Caverns/Ruidoso, Sept. 4-7, \$145.

"These tours are short, inexpensive and great fun," Frank says. "There are snacks

and drinks on the bus, transportation, admissions and lodging included. We will have full information sheets at the travel desk in the Club lobby tonight or pick them up at the Club office."

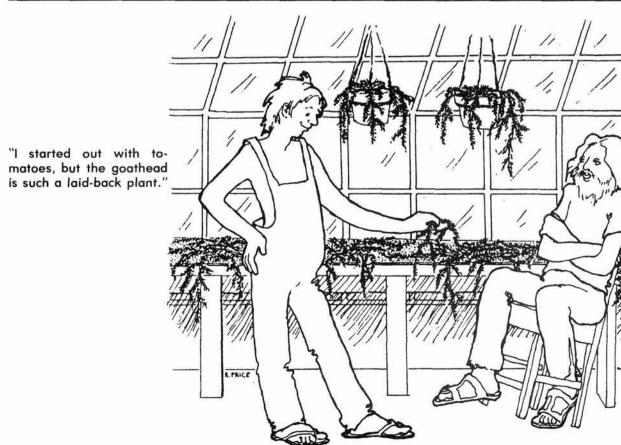
Other travel packages open include Gallup Indian Ceremonial (Aug. 8, \$28), Cumbres and Toltec scenic railroad trip (July 26 or Sept. 26, \$42 adults, \$30 kids 11 and under) and Cozumel (various weeks, \$359).

A meeting to discuss traveling to China is set for June 18 at 7 p.m. Frank invites anyone interested to be at the Club to discuss various possibilities.

## Take Note

The Amarillo Globe-Times reports that six persons participating in a "Pilgrimage of Prayer for Peace" at the Pantex nuclear plant got something more than a slap on the wrist for scaling the eight-foot security fence around the plant. They were convicted of misdemeanor criminal trespass and received sentences ranging from six months to one year of imprisonment. One of the convicted said, "The laws are immoral and should be transgressed."

Retiree Felix Padilla took some of the top honors in two recent national art shows for his acrylic landscape paintings. He took second place in the 1981 Western Slope National Art Exhibition in Montrose, Colo., and third in the 13th National Art Show sponsored by the Fine Arts League of La Junta, Colo. Felix entered in the professional category competing with more than 300 entries in both shows. His paintings depict scenery around Taos.



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